Gregory V Lowry

List of Publications by Year
in descending order

166 papers	26,572 citations	4960 84 h-index	7160 153 g-index
167 all docs	167 docs citations	167 times ranked	19563 citing authors

#	Article	IF	Citations
1	Towards a definition of inorganic nanoparticles from an environmental, health and safety perspective. Nature Nanotechnology, 2009, 4, 634-641.	31.5	1,586
2	Environmental Transformations of Silver Nanoparticles: Impact on Stability and Toxicity. Environmental Science & Technology, 2012, 46, 6900-6914.	10.0	1,269
3	Nanoparticle Aggregation: Challenges to Understanding Transport and Reactivity in the Environment. Journal of Environmental Quality, 2010, 39, 1909-1924.	2.0	983
4	Transformations of Nanomaterials in the Environment. Environmental Science & Technology, 2012, 46, 6893-6899.	10.0	967
5	Aggregation and Sedimentation of Aqueous Nanoscale Zerovalent Iron Dispersions. Environmental Science & Technology, 2007, 41, 284-290.	10.0	917
6	Titanium Dioxide (P25) Produces Reactive Oxygen Species in Immortalized Brain Microglia (BV2):â€‰ Implications for Nanoparticle Neurotoxicity. Environmental Science & Technology, 2006, 40, 4346-4352.	10.0	800
7	TCE Dechlorination Rates, Pathways, and Efficiency of Nanoscale Iron Particles with Different Properties. Environmental Science & Technology, 2005, 39, 1338-1345.	10.0	708
8	Opportunities and challenges for nanotechnology in the agri-tech revolution. Nature Nanotechnology, 2019, 14, 517-522.	31.5	572
9	Ionic Strength and Composition Affect the Mobility of Surface-Modified Fe⁰ Nanoparticles in Water-Saturated Sand Columns. Environmental Science & Technology, 2008, 42, 3349-3355.	10.0	478
10	Stabilization of aqueous nanoscale zerovalent iron dispersions by anionic polyelectrolytes: adsorbed anionic polyelectrolyte layer properties and their effect on aggregation and sedimentation. Journal of Nanoparticle Research, 2008, 10, 795-814.	1.9	467
11	Degradation of Well Cement by CO2 under Geologic Sequestration Conditions. Environmental Science & Technology, 2007, 41, 4787-4792.	10.0	453
12	Sulfidation Processes of PVP-Coated Silver Nanoparticles in Aqueous Solution: Impact on Dissolution Rate. Environmental Science & Technology, 2011, 45, 5260-5266.	10.0	432
13	Effect of Particle Age (Fe0Content) and Solution pH On NZVI Reactivity:Â H2Evolution and TCE Dechlorination. Environmental Science & Technology, 2006, 40, 6085-6090.	10.0	418
14	Nanosize Titanium Dioxide Stimulates Reactive Oxygen Species in Brain Microglia and Damages Neurons <i>in Vitro</i>. Environmental Health Perspectives, 2007, 115, 1631-1637.	6.0	408
15	Surface Modifications Enhance Nanoiron Transport and NAPL Targeting in Saturated Porous Media. Environmental Engineering Science, 2007, 24, 45-57.	1.6	403
16	Size-Controlled Dissolution of Organic-Coated Silver Nanoparticles. Environmental Science & Technology, 2012, 46, 752-759.	10.0	374
17	Sulfidation of Silver Nanoparticles: Natural Antidote to Their Toxicity. Environmental Science & Technology, 2013, 47, 13440-13448.	10.0	364
18	Effect of Chloride on the Dissolution Rate of Silver Nanoparticles and Toxicity to <i>E. coli</i>. Environmental Science & Technology, 2013, 47, 5738-5745.	10.0	355

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19	Long-Term Transformation and Fate of Manufactured Ag Nanoparticles in a Simulated Large Scale Freshwater Emergent Wetland. Environmental Science & Technology, 2012, 46, 7027-7036.	10.0	351
20	Congener-Specific Dechlorination of Dissolved PCBs by Microscale and Nanoscale Zerovalent Iron in a Water/Methanol Solution. Environmental Science & Technology, 2004, 38, 5208-5216.	10.0	337
21	Fate of Zinc Oxide and Silver Nanoparticles in a Pilot Wastewater Treatment Plant and in Processed Biosolids. Environmental Science & Technology, 2014, 48, 104-112.	10.0	326
22	Effect of TCE Concentration and Dissolved Groundwater Solutes on NZVI-Promoted TCE Dechlorination and H₂ Evolution. Environmental Science & Technology, 2007, 41, 7881-7887.	10.0	317
23	Decreasing Uncertainties in Assessing Environmental Exposure, Risk, and Ecological Implications of Nanomaterials. Environmental Science & Technology, 2009, 43, 6458-6462.	10.0	311
24	Adsorbed Polymer and NOM Limits Adhesion and Toxicity of Nano Scale Zerovalent Iron to <i>E. coli</i>. Environmental Science & Technology, 2010, 44, 3462-3467.	10.0	304
25	Nanoparticle Size and Coating Chemistry Control Foliar Uptake Pathways, Translocation, and Leaf-to-Rhizosphere Transport in Wheat. ACS Nano, 2019, 13, 5291-5305.	14.6	303
26	Adsorbed Triblock Copolymers Deliver Reactive Iron Nanoparticles to the Oil/Water Interface. Nano Letters, 2005, 5, 2489-2494.	9.1	302
27	Particle Size Distribution, Concentration, and Magnetic Attraction Affect Transport of Polymer-Modified Fe⁰ Nanoparticles in Sand Columns. Environmental Science & Technology, 2009, 43, 5079-5085.	10.0	292
28	Low Concentrations of Silver Nanoparticles in Biosolids Cause Adverse Ecosystem Responses under Realistic Field Scenario. PLoS ONE, 2013, 8, e57189.	2.5	284
29	Partial Oxidation (â€œAgingâ€) and Surface Modification Decrease the Toxicity of Nanosized Zerovalent Iron. Environmental Science & Technology, 2009, 43, 195-200.	10.0	270
30	Guidance to improve the scientific value of zeta-potential measurements in nanoEHS. Environmental Science: Nano, 2016, 3, 953-965.	4.3	258
31	Removal of Antibiotic Florfenicol by Sulfide-Modified Nanoscale Zero-Valent Iron. Environmental Science & Technology, 2017, 51, 11269-11277.	10.0	251
32	Effect of natural organic matter on toxicity and reactivity of nano-scale zero-valent iron. Water Research, 2011, 45, 1995-2001.	11.3	245
33	Modeling Nanomaterial Environmental Fate in Aquatic Systems. Environmental Science & Technology, 2015, 49, 2587-2593.	10.0	241
34	Rate of CO₂ Attack on Hydrated Class H Well Cement under Geologic Sequestration Conditions. Environmental Science & Technology, 2008, 42, 6237-6242.	10.0	230
35	Effects of nano-scale zero-valent iron particles on a mixed culture dechlorinating trichloroethylene. Bioresource Technology, 2010, 101, 1141-1146.	9.6	227
36	Chemical Transformations during Aging of Zerovalent Iron Nanoparticles in the Presence of Common Groundwater Dissolved Constituents. Environmental Science & Technology, 2010, 44, 3455-3461.	10.0	220

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37	Adsorbed Polyelectrolyte Coatings Decrease Fe⁰ Nanoparticle Reactivity with TCE in Water: Conceptual Model and Mechanisms. Environmental Science & Technology, 2009, 43, 1507-1514.	10.0	211
38	Methylation of Mercury by Bacteria Exposed to Dissolved, Nanoparticulate, and Microparticulate Mercuric Sulfides. Environmental Science & Technology, 2012, 46, 6950-6958.	10.0	208
39	Cysteine-Induced Modifications of Zero-valent Silver Nanomaterials: Implications for Particle Surface Chemistry, Aggregation, Dissolution, and Silver Speciation. Environmental Science & Technology, 2012, 46, 7037-7045.	10.0	208
40	Trichloroethene Hydrodechlorination in Water by Highly Disordered Monometallic Nanoiron. Chemistry of Materials, 2005, 17, 5315-5322.	6.7	204
41	Sulfur Loading and Speciation Control the Hydrophobicity, Electron Transfer, Reactivity, and Selectivity of Sulfidized Nanoscale Zerovalent Iron. Advanced Materials, 2020, 32, e1906910.	21.0	204
42	Nanotechnology for sustainable food production: promising opportunities and scientific challenges. Environmental Science: Nano, 2017, 4, 767-781.	4.3	202
43	Hydrodehalogenation of 1- to 3-Carbon Halogenated Organic Compounds in Water Using a Palladium Catalyst and Hydrogen Gas. Environmental Science & Technology, 1999, 33, 1905-1910.	10.0	194
44	Reactivity, Selectivity, and Long-Term Performance of Sulfidized Nanoscale Zerovalent Iron with Different Properties. Environmental Science & Technology, 2019, 53, 5936-5945.	10.0	194
45	Impact of Nanoscale Zero Valent Iron on Geochemistry and Microbial Populations in Trichloroethylene Contaminated Aquifer Materials. Environmental Science & Technology, 2010, 44, 3474-3480.	10.0	187
46	Effect of silver nanoparticle surface coating on bioaccumulation and reproductive toxicity in earthworms (<i>Eisenia fetida</i>). Nanotoxicology, 2011, 5, 432-444.	3.0	186
47	Pd-Catalyzed TCE Dechlorination in Groundwater:Â Solute Effects, Biological Control, and Oxidative Catalyst Regeneration. Environmental Science & Technology, 2000, 34, 3217-3223.	10.0	183
48	Field-Scale Transport and Transformation of Carboxymethylcellulose-Stabilized Nano Zero-Valent Iron. Environmental Science & Technology, 2013, 47, 1573-1580.	10.0	182
49	Effect of kaolinite, silica fines and pH on transport of polymer-modified zero valent iron nano-particles in heterogeneous porous media. Journal of Colloid and Interface Science, 2012, 370, 1-10.	9.4	181
50	Oil-in-Water Emulsions Stabilized by Highly Charged Polyelectrolyte-Grafted Silica Nanoparticles. Langmuir, 2005, 21, 9873-9878.	3.5	176
51	Effects of Molecular Weight Distribution and Chemical Properties of Natural Organic Matter on Gold Nanoparticle Aggregation. Environmental Science & Technology, 2013, 47, 4245-4254.	10.0	165
52	Sulfidation Mechanism for Zinc Oxide Nanoparticles and the Effect of Sulfidation on Their Solubility. Environmental Science & Technology, 2013, 47, 2527-2534.	10.0	159
53	Critical Review: Role of Inorganic Nanoparticle Properties on Their Foliar Uptake and <i>in Planta</i> Translocation. Environmental Science & Technology, 2021, 55, 13417-13431.	10.0	154
54	Fe⁰ Nanoparticles Remain Mobile in Porous Media after Aging Due to Slow Desorption of Polymeric Surface Modifiers. Environmental Science & Technology, 2009, 43, 3824-3830.	10.0	148

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55	Estimating Attachment of Nano- and Submicrometer-particles Coated with Organic Macromolecules in Porous Media: Development of an Empirical Model. Environmental Science & Technology, 2010, 44, 4531-4538.	10.0	146
56	CuO Nanoparticle Dissolution and Toxicity to Wheat (<i>Triticum aestivum)</i> in Rhizosphere Soil. Environmental Science & Technology, 2018, 52, 2888-2897.	10.0	146
57	Transport and Deposition of Polymer-Modified Fe⁰ Nanoparticles in 2-D Heterogeneous Porous Media: Effects of Particle Concentration, Fe⁰ Content, and Coatings. Environmental Science & Technology, 2010, 44, 9086-9093.	10.0	142
58	Emerging Contaminant or an Old Toxin in Disguise? Silver Nanoparticle Impacts on Ecosystems. Environmental Science & Technology, 2014, 48, 5229-5236.	10.0	138
59	CO₂ Reaction with Hydrated Class H Well Cement under Geologic Sequestration Conditions: Effects of Flyash Admixtures. Environmental Science & Technology, 2009, 43, 3947-3952.	10.0	136
60	Hydrophobic Interactions Increase Attachment of Gum Arabic- and PVP-Coated Ag Nanoparticles to Hydrophobic Surfaces. Environmental Science & Technology, 2011, 45, 5988-5995.	10.0	134
61	Natural Organic Matter Alters Biofilm Tolerance to Silver Nanoparticles and Dissolved Silver. Environmental Science & Technology, 2012, 46, 12687-12696.	10.0	133
62	Critical review: impacts of macromolecular coatings on critical physicochemical processes controlling environmental fate of nanomaterials. Environmental Science: Nano, 2016, 3, 283-310.	4.3	130
63	Iron and Sulfur Precursors Affect Crystalline Structure, Speciation, and Reactivity of Sulfidized Nanoscale Zerovalent Iron. Environmental Science & Technology, 2020, 54, 13294-13303.	10.0	128
64	Effect of Adsorbed Polyelectrolytes on Nanoscale Zero Valent Iron Particle Attachment to Soil Surface Models. Environmental Science & Technology, 2009, 43, 3803-3808.	10.0	123
65	Impact of sulfidation on the bioavailability and toxicity of silver nanoparticles to Caenorhabditis elegans. Environmental Pollution, 2015, 196, 239-246.	7.5	122
66	Sulfur Dose and Sulfidation Time Affect Reactivity and Selectivity of Post-Sulfidized Nanoscale Zerovalent Iron. Environmental Science & Technology, 2019, 53, 13344-13352.	10.0	120
67	Distributing sulfidized nanoscale zerovalent iron onto phosphorus-functionalized biochar for enhanced removal of antibiotic florfenicol. Chemical Engineering Journal, 2019, 359, 713-722.	12.7	120
68	Guiding the design space for nanotechnology to advance sustainable crop production. Nature Nanotechnology, 2020, 15, 801-810.	31.5	119
69	Progress towards standardized and validated characterizations for measuring physicochemical properties of manufactured nanomaterials relevant to nano health and safety risks. NanoImpact, 2018, 9, 14-30.	4.5	117
70	Temperature- and pH-Responsive Star Polymers as Nanocarriers with Potential for <i>in Vivo</i> Agrochemical Delivery. ACS Nano, 2020, 14, 10954-10965.	14.6	108
71	Current status and future direction for examining engineered nanoparticles in natural systems. Environmental Chemistry, 2014, 11, 351.	1.5	103
72	Correlation of the Physicochemical Properties of Natural Organic Matter Samples from Different Sources to Their Effects on Gold Nanoparticle Aggregation in Monovalent Electrolyte. Environmental Science & Technology, 2015, 49, 2188-2198.	10.0	103

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73	Pd-Catalyzed TCE Dechlorination in Water:â€‰ Effect of [H2](aq) and H2-Utilizing Competitive Solutes on the TCE Dechlorination Rate and Product Distribution. Environmental Science & Technology, 2001, 35, 696-702.	10.0	99
74	Environmental Occurrences, Behavior, Fate, and Ecological Effects of Nanomaterials: An Introduction to the Special Series. Journal of Environmental Quality, 2010, 39, 1867-1874.	2.0	99
75	Empirical correlations to estimate agglomerate size and deposition during injection of a polyelectrolyte-modified Fe0 nanoparticle at high particle concentration in saturated sand. Journal of Contaminant Hydrology, 2010, 118, 152-164.	3.3	98
76	Unveiling the Role of Sulfur in Rapid Defluorination of Florfenicol by Sulfidized Nanoscale Zero-Valent Iron in Water under Ambient Conditions. Environmental Science & Technology, 2021, 55, 2628-2638.	10.0	98
77	Macroscopic and Microscopic Observations of Particle-Facilitated Mercury Transport from New Idria and Sulphur Bank Mercury Mine Tailings. Environmental Science & Technology, 2004, 38, 5101-5111.	10.0	97
78	Speciation Matters: Bioavailability of Silver and Silver Sulfide Nanoparticles to Alfalfa (<i>Medicago) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	10.0	96
79	Sulfidized Nanoscale Zero-Valent Iron: Tuning the Properties of This Complex Material for Efficient Groundwater Remediation. Accounts of Materials Research, 2021, 2, 420-431.	11.7	96
80	Effect of Bare and Coated Nanoscale Zerovalent Iron on <i>tceA</i> and <i>vcrA</i> Gene Expression in <i>Dehalococcoides</i> spp.. Environmental Science & Technology, 2010, 44, 7647-7651.	10.0	91
81	Sulfidation of copper oxide nanoparticles and properties of resulting copper sulfide. Environmental Science: Nano, 2014, 1, 347-357.	4.3	91
82	Nanomaterials in Biosolids Inhibit Nodulation, Shift Microbial Community Composition, and Result in Increased Metal Uptake Relative to Bulk/Dissolved Metals. Environmental Science & Technology, 2015, 49, 8751-8758.	10.0	90
83	Effect of Soil Organic Matter, Soil pH, and Moisture Content on Solubility and Dissolution Rate of CuO NPs in Soil. Environmental Science & Technology, 2019, 53, 4959-4967.	10.0	90
84	Stream Dynamics and Chemical Transformations Control the Environmental Fate of Silver and Zinc Oxide Nanoparticles in a Watershed-Scale Model. Environmental Science & Technology, 2015, 49, 7285-7293.	10.0	88
85	Polymer-Modified Fe⁰ Nanoparticles Target Entrapped NAPL in Two Dimensional Porous Media: Effect of Particle Concentration, NAPL Saturation, and Injection Strategy. Environmental Science & Technology, 2011, 45, 6102-6109.	10.0	86
86	Microbial Bioavailability of Covalently Bound Polymer Coatings on Model Engineered Nanomaterials. Environmental Science & Technology, 2011, 45, 5253-5259.	10.0	84
87	Modeling Nanosilver Transformations in Freshwater Sediments. Environmental Science & Technology, 2013, 47, 12920-12928.	10.0	82
88	Nanoparticle surface charge influences translocation and leaf distribution in vascular plants with contrasting anatomy. Environmental Science: Nano, 2019, 6, 2508-2519.	4.3	81
89	Electromagnetic Induction of Zerovalent Iron (ZVI) Powder and Nanoscale Zerovalent Iron (NZVI) Particles Enhances Dechlorination of Trichloroethylene in Contaminated Groundwater and Soil: Proof of Concept. Environmental Science & Technology, 2016, 50, 872-880.	10.0	80
90	A functional assay-based strategy for nanomaterial risk forecasting. Science of the Total Environment, 2015, 536, 1029-1037.	8.0	79

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91	Meditations on the Ubiquity and Mutability of Nano-Sized Materials in the Environment. ACS Nano, 2011, 5, 8466-8470.	14.6	77
92	Time and Nanoparticle Concentration Affect the Extractability of Cu from CuO NP-Amended Soil. Environmental Science & Technology, 2017, 51, 2226-2234.	10.0	77
93	Carbonate minerals in porous media decrease mobility of polyacrylic acid modified zero-valent iron nanoparticles used for groundwater remediation. Environmental Pollution, 2013, 179, 53-60.	7.5	73
94	Effect of Applied Voltage, Initial Concentration, and Natural Organic Matter on Sequential Reduction/Oxidation of Nitrobenzene by Graphite Electrodes. Environmental Science & Technology, 2012, 46, 6174-6181.	10.0	71
95	Uptake and Distribution of Silver in the Aquatic Plant <i>Landoltia punctata</i> (Duckweed) Exposed to Silver and Silver Sulfide Nanoparticles. Environmental Science & Technology, 2017, 51, 4936-4943.	10.0	70
96	Comparative Study of Polymeric Stabilizers for Magnetite Nanoparticles Using ATRP. Langmuir, 2010, 26, 16890-16900.	3.5	68
97	Gold nanoparticle biodissolution by a freshwater macrophyte and its associated microbiome. Nature Nanotechnology, 2018, 13, 1072-1077.	31.5	68
98	Predicting the Performance of Activated Carbon-, Coke-, and Soil-Amended Thin Layer Sediment Caps. Journal of Environmental Engineering, ASCE, 2006, 132, 787-794.	1.4	67
99	<i>In situ</i>remediation of subsurface contamination: opportunities and challenges for nanotechnology and advanced materials. Environmental Science: Nano, 2019, 6, 1283-1302.	4.3	65
100	CuO Nanoparticles Alter the Rhizospheric Bacterial Community and Local Nitrogen Cycling for Wheat Grown in a Calcareous Soil. Environmental Science & Technology, 2020, 54, 8699-8709.	10.0	65
101	Impacts of Pristine and Transformed Ag and Cu Engineered Nanomaterials on Surficial Sediment Microbial Communities Appear Short-Lived. Environmental Science & Technology, 2016, 50, 2641-2651.	10.0	63
102	A comparison of the effects of natural organic matter on sulfidated and nonsulfidated nanoscale zerovalent iron colloidal stability, toxicity, and reactivity to trichloroethylene. Science of the Total Environment, 2019, 671, 254-261.	8.0	60
103	Comparative Persistence of Engineered Nanoparticles in a Complex Aquatic Ecosystem. Environmental Science & Technology, 2018, 52, 4072-4078.	10.0	56
104	Size-Based Differential Transport, Uptake, and Mass Distribution of Ceria (CeO₂) Nanoparticles in Wetland Mesocosms. Environmental Science & Technology, 2018, 52, 9768-9776.	10.0	52
105	Protein coating composition targets nanoparticles to leaf stomata and trichomes. Nanoscale, 2020, 12, 3630-3636.	5.6	52
106	Quantifying the efficiency and selectivity of organohalide dechlorination by zerovalent iron. Environmental Sciences: Processes and Impacts, 2020, 22, 528-542.	3.5	51
107	<i>In Situ</i> Measurement of CuO and Cu(OH)₂ Nanoparticle Dissolution Rates in Quiescent Freshwater Mesocosms. Environmental Science and Technology Letters, 2016, 3, 375-380.	8.7	50
108	Mobility of Four Common Mercury Species in Model and Natural Unsaturated Soils. Environmental Science & Technology, 2016, 50, 3342-3351.	10.0	46

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109	Parameter Identifiability in Application of Soft Particle Electrokinetic Theory To Determine Polymer and Polyelectrolyte Coating Thicknesses on Colloids. Langmuir, 2012, 28, 10334-10347.	3.5	45
110	Distinct transcriptomic responses of Caenorhabditis elegans to pristine and sulfidized silver nanoparticles. Environmental Pollution, 2016, 213, 314-321.	7.5	44
111	Research strategy to determine when novel nanohybrids pose unique environmental risks. Environmental Science: Nano, 2015, 2, 11-18.	4.3	43
112	Much ado about Î±: reframing the debate over appropriate fate descriptors in nanoparticle environmental risk modeling. Environmental Science: Nano, 2015, 2, 27-32.	4.3	42
113	Transformations of Nanomaterials in the Environment. Frontiers of Nanoscience, 2014, 7, 55-87.	0.6	41
114	Biogenic Cyanide Production Promotes Dissolution of Gold Nanoparticles in Soil. Environmental Science & Technology, 2019, 53, 1287-1295.	10.0	38
115	Impact of mercury speciation on its removal from water by activated carbon and organoclay. Water Research, 2019, 157, 600-609.	11.3	36
116	Star Polymer Size, Charge Content, and Hydrophobicity Affect their Leaf Uptake and Translocation in Plants. Environmental Science & Technology, 2021, 55, 10758-10768.	10.0	36
117	Effect of silver concentration and chemical transformations on release and antibacterial efficacy in silver-containing textiles. NanoImpact, 2018, 11, 51-57.	4.5	32
118	Effect of CeO₂ nanomaterial surface functional groups on tissue and subcellular distribution of Ce in tomato (<i>Solanum lycopersicum</i>). Environmental Science: Nano, 2019, 6, 273-285.	4.3	32
119	Harmonizing across environmental nanomaterial testing media for increased comparability of nanomaterial datasets. Environmental Science: Nano, 2020, 7, 13-36.	4.3	32
120	Biogeochemical transformations of mercury in solid waste landfills and pathways for release. Environmental Sciences: Processes and Impacts, 2016, 18, 176-189.	3.5	31
121	Electromagnetic induction of foam-based nanoscale zerovalent iron (NZVI) particles to thermally enhance non-aqueous phase liquid (NAPL) volatilization in unsaturated porous media: Proof of concept. Chemosphere, 2017, 183, 323-331.	8.2	31
122	Effect of Initial Speciation of Copper- and Silver-Based Nanoparticles on Their Long-Term Fate and Phytoavailability in Freshwater Wetland Mesocosms. Environmental Science & Technology, 2017, 51, 12114-12122.	10.0	31
123	Partitioning of uranyl between ferrihydrite and humic substances at acidic and circum-neutral pH. Geochimica Et Cosmochimica Acta, 2017, 215, 122-140.	3.9	31
124	Effect of emplaced nZVI mass and groundwater velocity on PCE dechlorination and hydrogen evolution in water-saturated sand. Journal of Hazardous Materials, 2017, 322, 136-144.	12.4	30
125	Engineered nanoparticles interact with nutrients to intensify eutrophication in a wetland ecosystem experiment. Ecological Applications, 2018, 28, 1435-1449.	3.8	30
126	Modified MODFLOW-based model for simulating the agglomeration and transport of polymer-modified Fe0 nanoparticles in saturated porous media. Environmental Science and Pollution Research, 2018, 25, 7180-7199.	5.3	29

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127	Differential Reactivity of Copper- and Gold-Based Nanomaterials Controls Their Seasonal Biogeochemical Cycling and Fate in a Freshwater Wetland Mesocosm. Environmental Science & Technology, 2020, 54, 1533-1544.	10.0	29
128	Inhibition of bacterial surface colonization by immobilized silver nanoparticles depends critically on the planktonic bacterial concentration. Journal of Colloid and Interface Science, 2016, 467, 17-27.	9.4	28
129	Adsorbed poly(aspartate) coating limits the adverse effects of dissolved groundwater solutes on Fe0 nanoparticle reactivity with trichloroethylene. Environmental Science and Pollution Research, 2018, 25, 7157-7169.	5.3	28
130	From mouse to mouseâ€ear cress: Nanomaterials as vehicles in plant biotechnology. Exploration, 2021, 1, 9-20.	11.0	27
131	Impacts of Sediment Particle Grain Size and Mercury Speciation on Mercury Bioavailability Potential. Environmental Science & Technology, 2021, 55, 12393-12402.	10.0	27
132	Nanotechnology patenting trends through an environmental lens: analysis of materials and applications. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	26
133	Life cycle considerations of nano-enabled agrochemicals: are today's tools up to the task?. Environmental Science: Nano, 2018, 5, 1057-1069.	4.3	26
134	Star Polymers with Designed Reactive Oxygen Species Scavenging and Agent Delivery Functionality Promote Plant Stress Tolerance. ACS Nano, 2022, 16, 4467-4478.	14.6	26
135	Redox Control and Hydrogen Production in Sediment Caps Using Carbon Cloth Electrodes. Environmental Science & Technology, 2010, 44, 8209-8215.	10.0	25
136	High molecular weight components of natural organic matter preferentially adsorb onto nanoscale zero valent iron and magnetite. Science of the Total Environment, 2018, 628-629, 177-185.	8.0	23
137	Synergistic Zerovalent Iron (Fe⁰) and Microbiological Trichloroethene and Perchlorate Reductions Are Determined by the Concentration and Speciation of Fe. Environmental Science & Technology, 2020, 54, 14422-14431.	10.0	23
138	Characterization of engineered alumina nanofibers and their colloidal properties in water. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	22
139	Press or pulse exposures determine the environmental fate of cerium nanoparticles in stream mesocosms. Environmental Toxicology and Chemistry, 2016, 35, 1213-1223.	4.3	22
140	Accurate and fast numerical algorithms for tracking particle size distributions during nanoparticle aggregation and dissolution. Environmental Science: Nano, 2017, 4, 89-104.	4.3	22
141	Persistence of copper-based nanoparticle-containing foliar sprays in Lactuca sativa (lettuce) characterized by spICP-MS. Journal of Nanoparticle Research, 2019, 21, 1.	1.9	22
142	Distinguishing Engineered TiO₂ Nanomaterials from Natural Ti Nanomaterials in Soil Using spICP-TOFMS and Machine Learning. Environmental Science & Technology, 2022, 56, 2990-3001.	10.0	19
143	Graphite nanoparticle addition to fertilizers reduces nitrate leaching in growth of lettuce (Lactuca) Tj ETQq1 1 0.784314 rgBT /Overlock	4.3	18
144	Nanoparticle core properties affect attachment of macromolecule-coated nanoparticles to silica surfaces. Environmental Chemistry, 2014, 11, 257.	1.5	15

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145	Multistep Method to Extract Moderately Soluble Copper Oxide Nanoparticles from Soil for Quantification and Characterization. Analytical Chemistry, 2020, 92, 9620-9628.	6.5	15
146	Comparative Study of Effects of CO₂Concentration and pH on Microbial Communities from a Saline Aquifer, a Depleted Oil Reservoir, and a Freshwater Aquifer. Environmental Engineering Science, 2016, 33, 806-816.	1.6	14
147	CO₂concentration and pH alters subsurface microbial ecology at reservoir temperature and pressure. RSC Advances, 2014, 4, 17443-17453.	3.6	12
148	Physicochemistry of Polyelectrolyte Coatings that Increase Stability, Mobility, and Contaminant Specificity of Reactive Nanoparticles Used for Groundwater Remediation. , 2009, , 249-267.		11
149	Copper and Gold Nanoparticles Increase Nutrient Excretion Rates of Primary Consumers. Environmental Science & Technology, 2020, 54, 10170-10180.	10.0	10
150	Visualization tool for correlating nanomaterial properties and biological responses in zebrafish. Environmental Science: Nano, 2016, 3, 1280-1292.	4.3	8
151	Treatability Study for a TCE Contaminated Area using Nanoscale- and Microscale-Zerovalent Iron Particles: Reactivity and Reactive Life Time. ACS Symposium Series, 2010, , 183-202.	0.5	6
152	Nanoscale Zerovalent Iron (NZVI) for Environmental Decontamination: A Brief History of 20 Years of Research and Field-Scale Application. , 2019, , 1-43.		6
153	Investigation of pore water and soil extraction tests for characterizing the fate of poorly soluble metal-oxide nanoparticles. Chemosphere, 2021, 267, 128885.	8.2	6
154	IN SITU Chemical Reduction For Source Remediation. , 2014, , 307-351.		6
155	Response to Comment on â€œSulfidation of Silver Nanoparticles: Natural Antidote to Their Toxicityâ€• Environmental Science & Technology, 2014, 48, 6051-6052.	10.0	5
156	Chemical Reduction and Oxidation of Organic Contaminants by Nanoscale Zerovalent Iron. , 2019, , 97-155.		4
157	Sulfide-Modified NZVI (S-NZVI): Synthesis, Characterization, and Reactivity. , 2019, , 359-386.		4
158	Inching closer to realistic exposure models. Nature Nanotechnology, 2018, 13, 983-985.	31.5	2
159	Physicochemistry of Polyelectrolyte Coatings that Increase Stability, Mobility, and Contaminant Specificity of Reactive Nanoparticles Used for Groundwater Remediation. , 2014, , 473-490.		1
160	State of Knowledge and Future Needs for NZVI Applications in Subsurface Remediation. , 2019, , 563-579.		1
161	Colloidal and Surface Science and Engineering for Bare and Polymer-Modified NZVI Applications: Dispersion Stability, Mobility in Porous Media, and Contaminant Specificity. , 2019, , 201-233.		1
162	Mechanistic, Mechanistic-Based Empirical, and Continuum-Based Concepts and Models for the Transport of Polyelectrolyte-Modified Nanoscale Zerovalent Iron (NZVI) in Saturated Porous Media. , 2019, , 235-291.		1

#	Article	IF	Citations
163	Electromagnetic Induction of Nanoscale Zerovalent Iron for Enhanced Thermal Dissolution/Desorption and Dechlorination of Chlorinated Volatile Organic Compounds. , 2019, , 415-434.		1
164	Biological Barriers, Processes, and Transformations at the Soilâ€"Plantâ€"Atmosphere Interfaces Driving the Uptake, Translocation, and Bioavailability of Inorganic Nanoparticles to Plants. , 2022, , 123-152.		1
165	The NSF-EPA Centers for the Environmental Implications of Nanotechnology. , 2018, , 151-168.		0
166	Vadose Zone Remediation of Dense Nonaqueous Phase Liquid Residuals Using Foam-Based Nanoscale Zerovalent Iron Particles with Low-Frequency Electromagnetic Field. , 2019, , 471-494.		0